ABSTRACT

A method of driving a brushless DC motor includes operations of rectifying an AC voltage of an AC power source by a rectifier circuit to which a capacitor is coupled between its output terminals and the AC voltage of the AC power source is input; driving the motor by an inverter coupled to the rectifier circuit; detecting a rotor position of the motor by a position detector based on a motor back electromotive force or a motor current; estimating the rotor position by a position estimator when the rotor position is not detectable by the position detector; and controlling the inverter by a controller based on the rotor position detected by the position detector or the rotor position estimated by the position estimator.